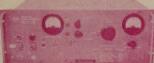
AM-4531 POWER AMP



AM-4531/GR VHE LINEAR POWER AMPLIFIER by Granger Associates; designed for 120 to 152 MHz range to deliver 50 water

deliver 50 watt output from 10 W input. Uses 8122 tube in F-A. Has 2.5" rd multimeter with seven position switch to monitor Plate to 2 KV, Screen to 1 KV, Flate RF Peak to 1 KV, Bias to -100 V, Forward Power to 100 W, and Reflected Power to 100 W. Also 2.5" rd 0-300 ma Plate Current meter, Loading and Coupling controls each with lock, and Bias Adjust. Requires 105/1115/130/210/230/260 VAC 47-400 Hz. 7x19x14.5, 50 lbs. Used-not tested, \$195.

DP ANTENNA TRANSFER

DOUBLE POLE ANTENNA TRANS-FER RELAY ASSEMBLY used with AM-4831 power amp; consists of two ganged Amphenol 360-11896-1003 SPDT antenna relays that can be separated. Each is



can be separated. Each is rated 500 watts CW (0-0.5 GHz), 100 W (0.5-3 GHz), or 50 W (3-6 GHz). 115 VAC coils; each with N and 2-BNC connections. 5x3.5x1.5, 2 lbs. #GR-0017094, \$24.95

JENNINGS UCS-300-7.5



JENNINGS UCS-300-7.5 VACUUM VARIABLE CAPAC-LITOR rated 9-300 pf, 7500 V maximum. Has standard type

tuning shaft and flange mount; 3.25" dia X 8.75" long, 3 lbs sh. Unused, \$99.95

COLLINS ANTENNA TUNER

COLLINS 180Y-1 ANTENNA TUNER, designed for use with 2-30 MHz medium power transmitter. Consists of variable capacitor with sections 50-1600 and 25-600 pf (0.065" min/0.156" max air gap), 2.9" dia 14-turn roller inductor of 0.19" dia



silver-plated tubing, large ceramic tap switch, and 3 ea 100 pf 7500 V Centralab 850 capacitors. Controls C Selector 2-3, 3-9, 9-30 MHz; Var C 0-100; L Select 2-2.6, 2-2.6L, 2.6-3, 3-4, 4-5, 5-6-8. 8-10, 10-14, 14-20, 20-30 MHz; and Var L Vernier. 7x12.5x16.8, 33 lbs. Used, \$99.50

AN/GRC-109 RADIO

AN/GRC-109 RADIO SET, compact Special Forces communication set consisting of receiver, transmitter, and two power supply units described below; each in black cast aluminum cases w/cover. 65 lbs; used-reparable \$109.50



R-1004/GRC-109 RECEIVER, covers 3 to 24 Mhz AM-CW in bands 3-6, 6-12, and 12-24 Mhz; 455 Khz IF. Bandwidth 9 Khz. Sensitivity: 5 uv for 10 db signal:noise. 30 MW audic output into 4000 ohms. W/tubes 4/1T4. 1U5. 1L6.

output into 4000 ohms. W/tubes 4/1T4, 1U5, 1L6. Requires 1.5 VDC 300 ma and 90-108 VDC 20 ma 8.6x5.5x5.5. 12 lbs sh.

T-784/GRC-109 TRANS-MITTER, 3 to 22 Mhz CW in bands 3-6, 6-10, 10-17, and 17-22 Mhz at 10-15 watts depending on frequency. Crystal frequency control; tuned by adjusting



three panel controls according to tuning chart. Has built-in CW key and provision for use with automatic high-speed GRA-71 code-burst keyer (not available). Uses single wire antenna with impedance of 72-1200 ohms. W/tubes 2E26, 6AC7. Requires 450 VDC 100 ma and 6.3 V 1.2 A; 8.6x5.5x5.5, 11 lbs.





PP-2684/GRC-109 POWER SUPPLY, provides all voltages for Rx and Tx plus 6 VDC 3.8 amp battery charge from inputs 75-260 VAC 40-400 Hz, 6.3 VDC 13 amps, or 6-43 generator input. 10x8.5x5.5, 28 lbs sh.

PP-2685/GRC-109 POWER SUPPLY, powers Rx and Tx from 75-260 VAC 40-400 Hz input only; 8.6x5.5x5.5, 14 lbs sh.

MANUAL for GRC-109, partial repro, \$12.00 CN-690/GRC-109 VOLTAGE REGULATOR, required when set powered by generator, \$12.00 CY-4621 ACCESSORY CASE, 3 lbs, \$6.00

ULTRA-LIGHT HEADSET

NORTHERN TELECOM VENTURE I ULTRA
LIGHT HEADSET-BOOM MIC, boom
fits over ear and audic
heard through a disposable earplug. 2-prong
plug has builtin impedance
matcher. Coil
cord with on-off
mic switch will
stretch to 7 ft.
9 VDC req for intercom, etc. Used \$19.95

UNIVERSAL BRIDGE

ZM-ii TEST SET, portable bridge unit designed to measure capacitance, inductance, resistance, transformer turn ratio, dissipation factors of inductors and capacitors, and storage factors of inductors—all at i Khz test frequency. Also insulation and leakage of



electrolytics in circuit using 10.75 Mhz test frequency. Capacitance range: 10 pf-10 mf, 1 mf-100 mf, 10 mf-1100 mf. 10 ng-1100 mf. Inductance: 0.1 mH-1 H, 1 H-10 H, 10 H-110 H. Insulation DC res: 200-500 Megohm, 5K-10K Megohm. Transformer turn ratio: 0.01-110 (K=1). DC leakage: 0-1-5-25 MA. Dissipation: 0-0.06 (10 pf-0.1 mf), 0-0.6 (0.1 mf-1100 mf). G Storage: 0.5-20. DC applied to electrolytics is 0-500 VDC. Uses test leads with standard banana jacks. (Leads not available.) W/tubes 6E5, 6J6, 2/6AV6, 6AG5, 6AL5, 6AG5, and 6X4. Requires 115 VAC 50-1000 Hz; 5.8x9x9.8, 18 lbs. Used-reparable, \$85.; Checked, \$115.00 MANUAL for ZM-11, partial repro, \$8.50



PP-281 SUPPLY

PF-281/GRC 12 VDC MODULAR POWER SUPPLY, hard-to-find item plugs into and allows 12 VDC operation of R-108-109-110 receivers and RT-70/ AM-65 transceiver combo. 6 lbs sh. Unused \$20,95 PP-282 24 VDC SUPPLY new \$8.

SOLID-STATE SCOPE

OS-106/USM-117 TRANSISTOR-IZED OSCILLOSCOPE, DC to 5 Mhz bandwidth, 4QP2 rectangular CRT, and is very compact. Includes MX-2996 high gain vertical plug-in plus has dual-trace capabilities when used with MX-2995 plug-in (not included). Sweep range 0.1



cluded). Sweep range 0.1
usec to 0.1 sec in 19 calibrated steps in 12-5-10 sequence. Vertical sensitivity; 0.01
v/div to 20 v/div in 11 calibrated steps
in 1-2-5-10 sequence, variable to 50 v/div.
Input impedance 1 Megohm shunted by 47 pf.
Calibrator generates 1 Khz square wave at
either 0.04 or 0.4 V p-p. Probe not available. Requires 115 VAC 50-60 or 400 Hz. 8.5x
9.8x15; 20 lbs sh. Used-reparable, \$165.00
Checked, \$265.00; Manual-partial repro, \$15.
MX-2995 DUAL-TRACE PLUG-IN, \$100 w/set purch

Fair Radio Sales Co.

1016 E. EUREKA ST.

P. O. BOX 1105

Lima. Ohio 45802

PHONE: 419/227-6573



GOD IS JUST A PRAYER AWAY



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WS-84 CATALOG SUPPLEMENT

3-LINE 3-HOLD DESK PHONE



AUTOMATIC ELECTRIC MODEL 87 3-LINE 3-HOLD TELEPHONE with rotary dial; standard desk style phone permits usage of upto three lines each with separate line "hold" button. Includes handset with coil cord, 5' cable with terminal lug.connections, and mounting hardware. Black only; 6 lbs sh. Unused, \$27.95

GOOSENECK LAMP EXTENSION with mini-bayonet lamp-holder. 1.1" dia right angle lens rotates 360 : 6.5" lg fl

older. 1.1" dia right anle lens rotates 360 ; 6.5" lg flexible section has -contact base. 0/a 10.5" lg; #GN-LA-EXT used \$3; 2/\$5.

PRICES ARE F.O.B. LIMA
ITEMS OVER 70 LBS. SHIPPED
MOTOR FREIGHT COLLECT
INCLUDE PAYMENT IN FULL.
USE YOUR MASTERCARD OR VISA.
STORE HOURS: Monday thru Friday 9 to 5:30
Saturday 9 to 1:00

PANEL METERS



0-150 ADC/0-75 VDC DUAL SCALE METER, full scale = 150 MV with zero adjust, 2.3"x2.8 size; mounts into 2.3" dia hole. Misicorp model 1921-M1031; #JB-150-75 unused \$5.95

CLEAR PLASTIC 4.3"x4.8" ME-TERS made for Western Electric by Weston or Triplett; mount in 2.8" dia hole. Used \$10 ea. Specify scale choice: 0-5 amps DC (FS=5 ADC) 0-50 amps DC (FS=50 MV) -500 amps DC



10-15 volts DC; 0-20 VDC; 0-300 volts DC CLEAR PLASTIC 3.5" dia METERS made for Western Electric by Weston; 2.8" dia mtg. Used. 0-10 or 0-15 amps DC, \$10 ea. 0-50 ADC (FS=50 mv), \$6.95 0-50 ADC (FS=50 mv), \$4.95 0-30 VDC, \$7.95; 0-100 VDC \$4. 7.5-15 VDC, \$7.95

12 VDC 4 AH NICAD

12 VDC 4 AMP HOUR NICAD BAT TERY PACK, ten high quality stainless steel 2.3x2.9x0.6 V cells form 2.5"x3"x1 Recommended charge: 400 ma over 15 hours. Rear-range cells to adapt to your size requirements: 6 lbs sh. GE #42B004KA01, Used \$25.00

FUSES & FUSEHOLDERS



3AG, 1 amp, 10/\$1.0 amp slo-blo 10/\$1.25 TRON KAA BO, BO amp V; 2.6x1" dia blade-lug type, \$2.50 ea CEFCO F19, 100 A 250 V; 3.6x1" dia, 5.8" long

with blades, \$2.00 ea
AIRCRAFT TYPE 32084-B, 120 A 125 V; 2.6"x1"
dia, 4" long with lug blade, \$2.00 ea
BUSS ACK150, 150 A 125 V; 2.6"x1" dia, 4.3"
long with lug-blade, \$3.00 ea
EE 1488, 200 A 250 V, 4 304 em

long with lug-blade, \$3.00 ea SE 1488, 200 A 250 V; 4.3x1.8" dia, 7.5" long with blade, \$3.50 ea SHAWMUT A6/175, 175 A 600 V AC-DC current limiting; 2.5x1.5" dia, 9.8" lg w/blade \$4.8USS HVC2, 3000 V 2 A cartridge-type; 5.5x.4" dia, \$2 ea 5/\$8. GE EJD-1 Size D, 4800 V 100E amp 5 KV max; cartridge 12"x2.9" dia, 10 lbs sh, \$10.00

IN-LINE FUSEHOLDERS for 3AG, 5 for \$1.00 TRON HEC 60 A 300 V WHITE PORCELAIN FUSEHOLDERS.

#3-WH-FUH for 3/ 1.5"x.4" dia fuse 2.9x2.9x1.4 \$3.50 ea #2-WH-FUH as above but double: 2x2.9x1.4, used, \$2.50

#1-WH-FUH for single 2"x.5" dia fuse; o/a 1.5x3.3x2.9, used, \$2.00



QUICK-DISCONNECT

HAR-COR'S QUICK DISCONNECT KIT, for easy and clean hook-up of accessory power leads. Includes one mated pair 2-conductor con-nectors & four 3M #558 crimp co nectors for #18-#22 AWG wire. display packet, \$1.50 ea; 10/\$12

3M #560 CRIMP f/#14-#18 wire, 4/\$1; 100/\$15.

20 HZ STATIC RINGER

20 HZ INVERTER MODULE. used in telephone equip-ment to produce 20 Hz 65 volt 50 ma ringing signal from 110 VDC 65 ma input. 3.4x2x3, 2 lbs.



PATCH PANEL



#24-SWB-PP, used, 1bs sh. \$18.00

HEAD & MIC SETS



H-157/AIC HEADSET W/BOOM MIC. part of AIC-10 aircraft communication system and used in high DB situations. Has adjustable 3.5 ohm mic and boom and two earphones (10 ohm para-lleled impedance) with vinylcovered foam cushions. Also 28" cord with 4-circuit U-174 plug. 4 lbs sh. Used, \$18.95

H-161 1000 ohm HEADSET with 300 ohm BOOM MIC for VRC-12 equipment. Has CX-8562 cable and switch: 4 lbs sh. Used, \$19.95 CX-8650 "Y" COIL CORD w/2 U-182 conn

H-161 with CX-8652, unused \$40.00 CCSP-49885 2000 ohm HEADSET with adjustable rubber-padded headband and six foot "Y" cord and PL-55 plug. 2 lbs sh; #5965-400-3118, unused, \$5.95 M301 CHAMOIS CUSHIONS, \$2.25/pr

HS-33 600 DHM HEADSET with U.S. made HB-7 brown leather headband, 18" cord & PL-354 plug. Used-excellent, \$16

PHONE HANDSET

TELEPHONE HANDSET with receive and transmit elements and coil cord.

Black only; various mfg. 2 lbs sh. Used, \$3. WESTERN ELECTRIC mfg black handset, used, \$4.

TRANSIT CASES



CV-425 ALUMINUM CASE with rounded corners: sturdy single compartment construction with hasp-type fast-

ners. Interior 9.3x x10x5.8, 6 lbs sh. Used \$6.00 CY-693/PDR ALUMINUM

CASE, four compartments 3.5x4, 7.5x4, 1.8x4, and 13x6.5; may be removed for 13x10 size 9" deep. Hinged top with hasp fastners; may need re

painting. 12 lbs sh; used, \$6.00



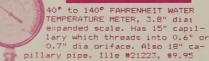
FIBERGLASS CASE with carrying handle and six hasp fastners; lid not hinged. Lower section 13.5x8x9; cover 3.5" deep. Has fittings and rubber shocks to be removed. #FIB-SR-684 11 lbs sh; used, \$7 ea; 3/\$17.

#CS-TH-14 ALUMINUM TRANSIT CASE with hasp fastners; in-terior 17.5x19.5x8. 22 lbs sh wt; used, \$10.00

#CS-AM-708 ALUMINUM TRANSIT CASE, as above but interior 17.5x19.5x16; 40 lbs, \$15.00



LIQUID TEMP



CONNECTOR

226 HEAVY DUTY CONNECTOR, contacts (5-male/5-female) each gold-plated 0.1" dia. Contact arrangement so that

U226 mates with another U226. Also has locking ap. 2.8" dia x 5.5" long plus 4" sleev lbs sh. Unused-cutoff, \$5 ea; 2/\$8.00

AERIAL CABLE CLOSURE



Weather-resistant, re-accessible closure used by phone and power companies

for cable splices, terminations, and service drops. Takes upto 30 lines; w/hardware. 7.5% 32.3%4.5, 7 lbs. Cook #81-1524, NEW, \$22.95

PDR-27 RADIAC SET

AN/PDR-27 PORTABLE RADIATION DE TECTOR consisting of IM-74 radiac meter and DT-53 or similar detect-or probe with BS-1 Geiger-Mueller tube. Meter indicates amount of beta and gamma radiation in milliroentgens per hour. Range scale 0.5, 5, 50, and 500 M-rtngs/hour. BNC connection for headset monitoring. Requires 135, 22.5, and 1.5 VDC originally supplied by batteries (not available). 8x6 12.5; 15 lbs sh. Used, \$29.95

MANUAL for PDR-27, original, \$5.00 SPARE GM TUBES, BS-1 \$7.50; BS-2, \$6.00 TRANSIT CASE for PDR-27, \$6.00 H-43 HEADSET for PDR-27, \$5.95

VOLUME & CURRENT LEVEL



MODEL 254 VOLUME and CURRENT LEVEL INDICATOR with 34-step, 2 db per step attenuator

marked -40-0-+26 db. Volume meter indicates -20 to +3 db. Has input transformer 20-40000 Lo to 70 db. Mas input transformer 20-40000 Hz ± 0.7 db 7500 ohms. Select either terminating or bridge input. Current meter shows 75-0-75 MA DC. W/tubes 0A2, 604, 64, 64, 12AU7. Requires 115/230 Vac 60 Hz. 5.3x19x7.5, 18 lbs. Used-reparable w/book \$32; unused \$50.

GHZ TEST EQUIPMENT



WESTERN ELECTRIC J68345C RF SWEEP OSCILLATOR for 3.7 to 4.3 GHz range used orionally to test microwave telephone installa-tions. Has 416B tube

as oscillator, waveguide output port, and controls for Plate Tune, Dutput, Feedback Tune, Sweep, IF-RF Cal, Sweep Norm-Rev, In and AT13 Out jacks. Also meter IF-RF-250 V-I -I monitor and push button attenuator 3-4-5-6-13. Requires 115 VAC 6 Hz. 10.3x19x9.3, 38 lbs. Used, \$75.00

WESTERN ELECTRIC KS-15658 NOISE-FIGURE TEST SET GHz; controls Start-Stop, Lamp



0-250 MA meter, +150 V test, and Input-Output ports. Requires 115 VAC 60 Hz. 8.5%

WAVEGUIDE TO COAX



WAVELINE 30065 WAVEGUIDE ADAPTER, WR-187 (UG-406B) to type N coax connection for 3.95-5.85 GHz range. 5x3.6" dia; used, \$14.95 connection

COMMERCIAL TEST EQUIPMENT, used-reparable: GENERAL RADIO 650A Impedance Bridge, \$99.50; GR 650A with AC Power Supply-Oscillator \$130 GR 1558A Octave Band Analyzer, \$175.00 HEWLETT-PACKARD 130C DC-500 KHz Scope with manual: reparable, \$145. Checked, \$195.00 H-P 175A DC-50 MHz Scope w/dual-trace, \$315. H-P 206A Audio Generator, 20 Hz-20 KHz; metered, designed distortion ±0.1%, \$150.00 H-P 412A DC Voltmeter, 13 ranges full scale 1 mv to 1000 VDC; also 1 ua to 1 amp, 1 oh to 1 Megohm, reparable \$100. Checked, \$140 H-P 2401C Integrating DVM, 6-digit 0.1-1000 1 ohm \$140. VDC in five ranges; designed $\pm 0.01\%$, H-P 2901A Input Scanner Programmer, \$250.00 H-P 2911A Guarded Crossbar Scanner, \$495.00 H-P 3440A DVM with 3443 High Gain plug-in; 4-digits to 999.9 in five ranges, \$125.00 H-P 3460B DVM, 5 digit to 999.99 VDC in four ranges; designed accuracy ± 0.004%, \$295.00 TEKTRONIX 545A Scope with CA dual trace plug-in, DC-24 MHz, \$295. Checked, \$375.00 TEK 585A Scope with Type 82 dual trace plug-in, DC-85 MHz, \$365. Checked, \$435.00 TEK 7A15 DC-80 MHz Single Trace Amplifier (AM-6565) for 7000-Series scopes, \$145.00

COUNTERMEASURES



R-1125/R-1230 COUNTERMEASURES RECEIVER for 2-32 MHz in bands 2-4, 4-8, 8-16, 16-32 MHz. Designed for direction

purposes and fea-tures frequency stability of 3 parts/10 5 ±50 Hz. Sensitivity 3.5 uv max input for 10 th hz. Sensitivity 3.5 uv max input for 10 to signal + noise:noise. First IF 1625-1725 KHz, 2nd 220 KHz, and 3rd 65 KHz. Separate Megacycle and Kilocycle 3-digit mechanical tuning counters in 100 KHz increments plus VFO for continuous tune. Meters for Signal Strength and 100 KHz Tune and controls for AGC, Output Level, and Hi-Lo DF. Una has 65 KHz output with 60 KHz bandwidth only; does not have ophoard detector. nas 65 km observed with a wiz bankset only; does not have onboard detector or audio amplifier. External 100 kHz reference signal required for tuning control. With tubes 6/5654, 5670, 3/5749, 4/5750, 6005, tubes 6/5654, 5670, 3/5749, 4/5750, 6005, 13/7586 nuvistors, and 13 semiconductors. Requires 175 VDC, 5 V (lights), 6.3 V (fil.) 18 V (reg-circuit), and 115 V (100 KHz) osc) originally supplied by 0-928/FLR oscillator power supply (not available). 6.2x19x24.5 1bs. Used-reparable w/repro book, \$115.00

TRANSMATCH - SWR METER

COLLINS COUP-LER MONITOR. detachable transmatch



Transmatch assembly has Johnson 229-201 10 tor, and 2x5 Centralab 850 100 pf HV capacitors. Also vernier dial for inductor, Hi-Lo impedance switch, and 0-500-1000 pf parallel capacitance load switch. Power/SWR monitor has 3.5" sq meter and ranges 0-100-1000 watt Forward and Reflected. Also 4" monitor and detector module with type N cons. 5x19x9, 16 lbs sh. Used, \$75.00

OUTPUT NETWORK



DUTPUT NETWORK ASSEMBLY from ART-13 transmitte originally used with 200 pf variable capacitor and L112 variometer to provide Pi and L match ing of 813 tube over 3-18 MHz using 17°-6' antenna. With 57 uHy coil tapped 2-6-15-

coil tap switch, and 7-Centralab 850 apacitors 25 pf, 3/50 pf, 3/67 pf. 5.5, 7 lbs sh. #ONET/ART-13, used, \$12.0 HV capacitors 25 pf,

R-174/GRR RECEIVER

R-174/GRR-5 RECEIVER. 1.5 to 18 MHz AM-CW four bands continuously tuned or ten preset channels; 455 KHz IF and 200 KHz crystal calibrator. Requires 90 VDC and



1.5 VPC which was originally supplied by PP-308 power supply (not available) Has 8 or 600 ohm audio, BFO, and tubes 3V4. 3/185, 3/144, and 105. As shown; no outer case. 5.3×12×8. 23 lbs sh. Used. \$29.95 11-pin POWER/AUDIO PLUG, \$3 w/set purchase. MANUAL for AN/SRR-5 (R-174/PP-308), \$7.50 CY-615 CABINET for R-174/PP-308. used. \$9.00

LOOP ANTENNA



AT-249/GRD DIRECTION FINDER LOOP ANTENNA originally used with RT-196/PRC-6 walkietalkie for homing purposes.

Operates over 47 to 56 MHz FM Collap continuously tunable. sible loop measures 14.7x14.7 extended; 20" H including handle. Controls Tune, Nor mal-Sense, Atten 1-2-3-4; 54" BNC cable, and CW-204 8.1x5.5x16.5 canvas ca 7 lbs sh; Unused. \$12.00

ARC-3 AIRCRAFT RADIO



T-67/ARC-3 TRANSMITTER. post-WW-II VHF set cover 100-156 MHz AM using 8 preset crystal-controlled channels; 8 W

With tubes 2/832, 2/64.6, 3/646, 6J5, 12SH7.
Requires 24 VDC and 410 VDC 325 ma. 7.5x12.3

R-77/ARC-3 VHE RECEI-VER, companion to T-67 and also operates on 8 preset crystal-controlled channels (not supplied.) With tubes six 6AK5, 3/12967, 2/129N7, 129H7, 129L7, 12A6, 12H6, 9001, 9002. Re-

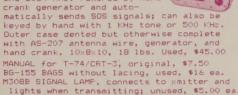


quires 24 VDC and 210 VDC 210 ma. 6x11x14.3 24 lbs sh. Used. \$22.95

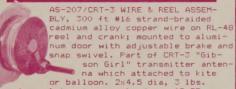
SCHEMATIC for T-67 or R-77, \$1.50 each. C-118/ARC-3 CONTROL BOX, for channel selection, mic, and headset jacks; \$8 w/set. C-197/ARC-3 AUDIO CONTROL, unused, \$4.00 CONNECTORS for T-67 and R-77, \$2.50 each. DY-21 and DY-22 24 VDC DYNAMOTORS,-WRITE. J-68/ARC-3 FOWER JUNCTION BOX, holds dynamo tors (not included); 9 lbs sh. Used, \$9.95

SIBSON SIRL

-74/CTR-3 SEA RESCUE TRANS-MITTER, famous "Gibson Girl" used in WW-II and still used MITTER. U.S. Navy; operates on distress frequencies of 500 and 8364 KHz. Powered by hand-



ANTENNA WIRE & REEL



Unused-complete wire, reel, door, \$9.95 Wire & reel only, \$7.50; Wire only, \$4.95

ARC-45 UHF TRANSCEIVER

RT-295/ARC-45 UHF TRANS CEIVER designed for light aircraft and employs preset channels in the 225-399.9 MHz AM range: 1 watt minimum transmitter output. Receiver IF's: 23.49-24.39 MHz and 2.98



MHz. Audio out 50 mw into 150 ohms. Uses 2/5893 tubes in PA, 5675 as doubler, 7077, plus 28 other miniature and sub-mini tubes. Requires 150 VDC 115 ma, 300 VDC 130 ma, 27 VDC 1.7 amps. 5.3×8×14.3, 19 lbs. Used-no crystals \$75.00; Schematic \$5.

SB-328/AR CHANNEL SELECTOR, for ARC-45; 12-position chan-nel select, tone button, volume, and 2 pilot lights w/327 lamps. 2.5x5.8x4.3, 3 lbs. Used \$5.95; Unused, \$9.95

ADF PANCAKE LOOP

AUTOMATIC DIRECTION FINDER ANTENNA, part of ARN-89 aircraft ADF system for 100-3000 KHz range. Two mini-BNC type connections: 28 VDC required. 11.8 11.8x1.3, 4 lbs. #AS-2108/ARN-89 used \$16.95

VIDEO DISPLAY

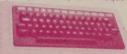
MOTOROLA 12" VIDEO DIS PLAY CHASSIS with 125T5427 F-31A or equal CRT. Transistorized unit originally had external sync and vert ical/horizontal circuitry. However, circuit board does allow for your installation



of transistors, diodes, resistors, capacitors to provide composite video input. Requires 115/230 VAC 50-60 Hz. Info for composite video circuitry included. 12.5x10x9,

8048 CPU KEYBOARDS

MICROPROCESSOR CONTROLLED KEYBOARDS. features P804B controller, an 8-bit CPU, RDM, RAM, I/O package with 1x8 ROM, 64x8 RAM, and 27 I/O lines. Compatiable with 8000 Series peripherals; 5 V required. With B04B info. 74-KEY MICROSWITCH



KEYBOARD, compact unit with case and standard querty for mat plus control functions Erase Display-Home, In Disp

Delete in Line, Insert, EDD Erase -EDL, Char Erase-Kfer, Ctl Page-Print, Unlock Msg-Wait, Cursor direction, etc. IC's 74H04, 7442, 8048 & 5.904 MHz xtal 3' cord w/DEC98. 8.5×15×3, 5 lbs sh. #2825479, NEW, \$24.95

CORTRON 110-KEY KEYBOARD with querty format.



pad, cursor con-trol keys, and 31 function keys: "Delete, Insert, Erase, Xmit, Xfer, Print, Kboard Un-lock, Control Page, Tab Set, FCC Clear/Search FCC Renenable/Status, FCC Generate/Msg Wait, Hang Up," and others. IC's CD4051, LM393, 74LS00, 74265, CD4028, MC14028, 8048; 6.00 MHz crystal. One or two keys maybe "reject 7.3x19x1.5, 5 lbs. #2893916, \$19.95 two keys maybe "reject. #113SD30/3137, as above but with KANA character function, 8748 EPROM CPU: Microswitch mfg; grey, black, blue, red keys. \$28.95

LAMBDA DC SUPPLIES



LAMBDA MODULAR DC FOWER SUP each 105-125/210-250 VAC 47-63 Hz input; output ratings #LOS-Z-5, 5 VDC 3 amps out; 4.8x4x2, 3 lbs sh, \$14.95 #LOS-Y-24, 24 VDC 2.3 amps; 5.6x5x2.8, 4 lbs sh, \$19.95

DC STEPPER MOTOR

PM DC STEPPER MOTOR, dual coil--CW and CCW rotation; each coil 5-pole (72°). Motor has seen by (72°). Motor has gear box resulting in 180 2° steps for each rotation of output shaft. Coil 17 VDC 29 ohms but works well on 5 VDC at reduced speed torque. Motor 1.4x.6", shaft .4"x.1 3.3"x1.5": Airpax #A82302, \$4 ea 3

INDUCTION MOTOR

INDUCTION MOTOR, Eastern Air Devices J71-B, 115 VAC 60 Hz 0.25 amp input for 1/40 HP 3100 RPM output. Quiet running: good replacement motor

for blowers. 3.1"x3.5" dia, shaft 0.9"x0.3" dia; 3 lbs sh. External capacitor required. #548-2239. unused \$4.95; 4 mf CAPACITOR, \$1

MULTI-SPEED PM MOTOR



MULTI-SPEED 24 VDC FM MOTOR can be wired for 11500 RPM 0.012 HP 0.7 amp or 3000 RPM 0.035 HP 2.3 amp operation; motor starts to turn

at 9 VDC and is reversible. 6"x2.3" dia with 3.5" dia collar; geared shaft 0.6x0.4" dia. 1bs sh. Sperry #2960031, used, \$12.95

WW-2 BACKPACK RECEIVER



C-728 RECEIVER, WW-II portable or vehicular unit for the 2 to 6 Mhz AM range; four pushbutton tuned bands 2-2.6, 2. 3.5, 3.5-4.5, and 4.5-6 Mhz. Has volume control, phone jack, and built-in speaker. Requires 2 VDC 1.85 amp input originally supplied by BB-54 bat-tery (not available). W/tubes 3/174, 1R5, 1S5, 3S4, and Vibrators VB-8-9. Radios part of SCR-593; reconditioned for the 11.5x6.3x5.5, 26 lbs sh; \$49.50 Italian Army.

AN-75 WHIP ANTENNA for BC-728 W/carrying strap; extends 12"-84", \$12 w/set. FT-338A VEHICULAR MOUNT, 8 lbs, \$12 w/set. CD-618A BATTERY CABLE, \$5.00 w/set. WANUAL for SCR-593, partial repro, \$8.50. VB-8 or VB-9 VIBRATORS for spares, \$2.00 ea.

EE-8 FIELD PHONE

EE-8 FIELD TELEPHONE, portable hand-ringing magneto type. Oper ates from two "D" cell batteries (not incld). Two or more can be used in a two wire system up to 17 miles in length. With carrying case and strap. 8x10x3.5, 19 lbs. Unused, \$60. MANUAL \$5.



J-47 KEY



J-47 KEY and LEG IRON, used with RM-39, GRC-9, and other sets for CW transmissions. Includes J-37 key with brass hardware on 3x4.5 black phenolic base marked key leg clamp for field use, and 65" cord with PL-55 plug. 3 lbs sh. Unused, \$15.95 J-47 w/o leg iron & cord, \$11

RM-39 FIELD CONTROL

RM-39 CONTROL UNIT, de-signed to allow EE-8 or similar field phone to remotely transmit and receive AM and CW radio communications. RM-39 is placed between field phone and radio set; also provides ringing circuit. Has GN-38 hand



circuit. Has GN-38 hand crank generator, MC-131 bell, selector for Telephone-Through-Radio-CW, and plugs & jacks for Headset, Key, and Mic. Part of RC-289 remote set. Requires 4.5 V, 15 V, and 3 V originally supplied by batteries (not available). 5x6.4x9.3, 16 lbs sh. Unused, \$22.95 MANUAL for RC-289 including RM-39, \$7.50

PRC-25-77 ACCESSORIES



ST-138/PRC BACKPACK HARNESS carrying PRC-25 or radio sets. May have minor tears and/or worn spots but completely usable; 4 lbs sh.

Used, \$14.00 CW-503/PRC ACCESSORY BAG for PRC-25 and -77; holds antenna components and handset. May have minor tears and/or wor spots but usable. Used, \$6.00

H-189 HANDSET for PRC-25-77; Used, \$12.00 H-250 HANDSET for PRC-25-77; Used, \$15.00 BA-4386/PRC LONG-LIFE BATTERY for PRC-25-77; 5/80 date code, 3 lbs. Unused \$6.95; 8/\$40.

12-BUTTON INTERCOM

INTERCOMMUNICATION CONTROL, 12-button station select each button coupled to plugin relay. Also solidstate audio amp/power



supply, 3" speaker,
volume, and holder for telephone handset.
Requires 115 VAC 60 Hz; no further info.
8.6×19×7.5, 20 lbs. #T050-198032, used, \$22.

AUDIO POWER METER



TS-585 AUDIO POWER OUTPUT METER, reads audio frequency power in milliwatts or in decibels re-Watts or in deciders referred to 1 MW in 600 chms. Range: 0.1-5 MW (-10-47 db), 1-50 MW (+10-+27 db), and 100-500

MW (+20-+37 db). read on 5.5" meter. Input impedance: 2.5 to 20000 ohms in 40 steps, 2.5-3-4-5-6-8-10-12.5-15 ohms in 40 steps, 20-25 sequence. Freq-range: 30-10000 Hz. 8.5x11.5x5.5, 16 lbs sh. Used-reparable MANUAL for TS-585, partial repro, \$8.50 16 lbs sh. Used-reparable, \$65

WHEATSTONE BRIDGE

ZM-4 RESISTANCE BRIDGE. portable Wheatstone bridge used to measure DC resistance of nication and power lines to determine shorts, crosses, and grounds Resistance measurement range 1 ohm to 1,011 Mohms ±0.15%; resistance box range 0 to 10,110



ohms, 16-500 ma. Galvanometer indicates degree of balance in test circuit. Requires 3-"D" cell batteries. Also 22.5 to 200 VDC more accurate readings above 1000 chms. 5.8x7.3x8.8, 12 lbs sh. Used-reparable \$45

ELECTRONIC FILTER



TABLE ELECTRONIC FILTER has dual filter sections each with high

20 Hz to 200 Khz using decade scales X10-X100-X1K-X10K. High pass greater than Allowalization and noise; Low pass 60 db on X10K range, 90 db below 1 MHz, 60 db above. Insertion loss: 0 db ±1 db for 20-20K Hz cut-off; 0 db ±2 db for 20K-200 KHz. Input impedance 2 Megohms shunted by 32 pf. Dut imped: 300 dhms. Max signal in: 6 V peak. W/tubes 10/12AT7, 0A2, 6AV6, 2/6AV5 or 6AG5. Requires 105-125 VAC 50-60 Hz; 5.2x19x13.6, Used-reparable w/partial manual, \$75

GHZ GENERATOR

POLARAD 1108 SIGNA_ GENERATOR. 6.95 to 11.0 GHz CW, square FM; has three place mechanical digital



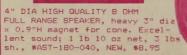
tuning. Output at-tenuator continuously tunable from 0.1 u-volt to 300K uv; uncalibrated outputs of 20 mw (6.95-8 GHz) and 10 mw (8-11 GHz). Internal square wave and FM rate 800-1200 Hz; FM sweep adjustable over 5 MHz most of band. 2/A713441 transistors and tubes EL34, 2/0A2, 8068, A160034 Polarad klystron. Requires 115 /230 VAC 50-60 Hz. 5.3x16.8x18.3, 50 lbs sh. Used-reparable with book, \$365.00



HEWLETT-PACKARD COOCDR WIDE RANGE OSCILLATOR, rack mount unit covers
5 Hz to 600 KHz in five decade ranges; ±2% de-

signed accuracy. Input impedance 600 ohms Requires 115/230 VAC 50-1000 Hz. 7x19x14. 26 lbs sh. Used-reparable, \$85.00 7×19×14.5;

FULL RANGE



R-390A/URR HF RECEIVER

R-3904/URR RECEIVER famous military set covers 0.5 to 32 Mhz AM-CW-MCW in 31 one Mhz bands read directly on mechan-ical digital counter. 455 Khz final IF: has four Col-



lins mechanical filters allowing 2-4-8-16 lins mechanical filters allowing 2-4-8-16 Khz selectable bandwidth. Calibration points every 100 Khz; also BFO, AGC, dial locks, 600 ohm audio out, Line and Carrier Level meters. Rackmount; no covers. Requires 115/230 VAC 60 Hz. 10.5x19x16.8; 95 lbs (UPS in 2 pkgs). Used-reparable, \$215.00 Checked, \$335.00; Manual partial repro \$15. R-390A excellent-checked (extra clean) \$400. REPLACEMENT PARTS for R-390A, removed from used equipment but guaranteed. usable. Please specify chassis part numbers when ordering.

AUDIO AMP, reparable \$30; Checked \$45. BFO Z-502 with flex coupling, \$15.00 CLAMPS for gears (specify gear), \$1.50 ea COUNTER DIAL, mechanical, \$15.00 CRYSTALS, 200 Khz (when available), \$18. CRYSTALS, specify frequency \$10 ea; 5/\$35 CAPACITOR C-603 or C-606, \$2.00 ea DIAL LOCK assembly with knob, \$10.00 DIAL ZERO shaft with knob, \$10.00 FILTER, BANDPASS FL-601, \$10.00 FILTER, MECHANICAL, checked: 2 or 4 Khz \$ 8 Khz, \$40.00; 16 Khz \$30.00 GEARS, #39 or #21, \$6.00 ea GEARS, other than above, \$3 ea; 5/\$10.00 or 4 Khz \$50

beaks, other than above, \$3 ea; 5/\$10.00 ea KNOBS, Megacycle or Kilocycle, \$6.00 ea KNOBS for RF, IF, Audio etc., \$1.50 ea KNOBS f/Ant Trim, Dial Lock, etc. \$1.25 ea POTS for RF/IF, Audio, Meter Level, \$2 ea PTD/VFO oscillator assembly, checked \$45. POWER SUPPLY less 26Z5 tubes, \$45.00 PTD/VFO if Collins manufacture, \$60. RELAY, ANTENNA, \$15.00 RESISTOR TUBE, RT510/3TF7, checked \$10 ea SLUGS for RF transformers, \$4.00 ea SLUG RACKS with springs, \$3.00 ea SWITCH, On/Off/Standby, \$5.00 SWITCHES f/front panel except above, \$3 ea

TRANSFORMER, audio output, \$9.00 ea TRANSFORMERS, RF or IF, \$8.00 ea IF AMPLIFIER DECK, checked, \$150.00 Meters and complete RF decks not available.

TCS RADIO SET

WW-II; includes TCS receiver, transmitter, and control box described below. 100 lbs sh UPS in 2 pkg.; Unused-not checked, \$185.00



TCS RECEIVER, covers 1.5-12 MHz AM-CW in 3 bands continuously tuned; provision for 4 preset channels. Audio: 1.5 MW into 500 ohms. W/tubes 3/12SK7, 12SA7, 12SB7, 2/12A6. Requires 12 VDC and 220 VDC 100 ma. 11.8×11.8×13.8

TCS TRANSMITTER, 1.5-12 Mhz in three bands at 40 watts CW or 20 W AM powwatts CW or 20 W HM pow-er output. Has VFD, pro-vision for 4 preset chan-nels, and 0-3 RF ammeter. W/tubes 4/1625, 3/12A6. Re-quires 12 VDC, 400-440 VDC 200 ma; 11.8x11.8x13.8.



TCS SPEAKER-CONTROL, has 5" dia 6 ohm PM speaker, 500:6 ohm AF transformer, volume control, and headset/mic jacks; 5.5x7.5x3.5.

TCS ACCESSORY ITEMS #211881 12 VDC DYNAMOTOR SUPPLY f/ Rx/Tx \$22. #211330 12/24 VDC SUPPLY f/Rx-Tx, 30 lbs \$27. PARLES for Rx. TX \$5 ea w/set. CABLES for Rx, TX \$5 ea NOISE LIMITER KIT for receiver, \$3.00 MANUAL for TCS set, partial repro, \$12.00

13 KV SUPPLY

WABASH HIGH VOLTAGE POWER SUPPLY rated 13.5 KV 0.5 MA peak from 120 VAC 60 Hz 30 W max. input. 5.5x6x1.8, 6 lbs #215-0167, unused \$9.95

